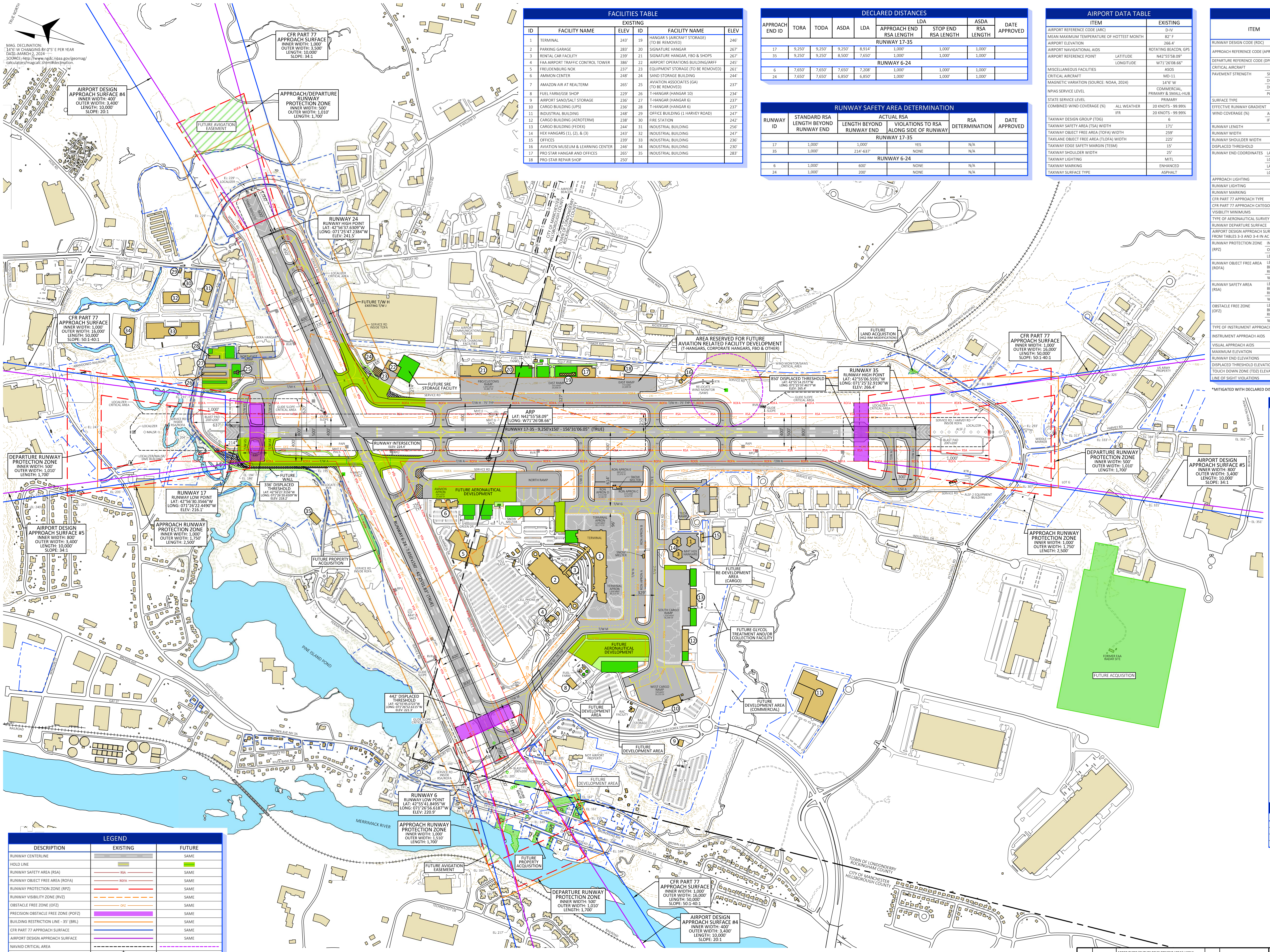


MAG. DECLINATION:
14°6' W CHANGING BY 0°5' E PER YEAR
DATE: MARCH 2, 2024
SOURCE: http://www.ngdc.noaa.gov/geomag/calculators/magcalc.shtml#declination.

FACILITIES TABLE

ID	FACILITY NAME	ELEV	ID	FACILITY NAME	ELEV
EXISTING					
1	TERMINAL	243'	19	HANGAR 5 (AIRCRAFT STORAGE) (TO BE REMOVED)	246'
2	PARKING GARAGE	283'	20	SIGNATURE HANGAR	267'
3	RENTAL CAR FACILITY	239'	21	SIGNATURE HANGAR, FBO & SHOPS	267'
4	FAA AIRPORT TRAFFIC CONTROL TOWER	386'	22	AIRPORT OPERATIONS BUILDING/ARFF	245'
5	FREUDENBURG NOK	237'	23	EQUIPMENT STORAGE (TO BE REMOVED)	261'
6	AMMON CENTER	248'	24	SAND STORAGE BUILDING	244'
7	AMAZON AIR AT REALTERM	265'	25	AVIATION ASSOCIATES (GA) (TO BE REMOVED)	237'
8	FUEL FARM/GSE SHOP	229'	26	T-HANGAR (HANGAR 10)	234'
9	AIRPORT SAND/SALT STORAGE	236'	27	T-HANGAR (HANGAR 6)	237'
10	CARGO BUILDING (UPS)	236'	28	T-HANGAR (HANGAR 6)	237'
11	INDUSTRIAL BUILDING	248'	29	OFFICE BUILDING (1 HARVEY ROAD)	247'
12	CARGO BUILDING (AEROTERM)	238'	30	FIRE STATION	242'
13	CARGO BUILDING (FEDEX)	244'	31	INDUSTRIAL BUILDING	256'
14	HEX HANGARS (1), (2), & (3)	243'	32	INDUSTRIAL BUILDING	247'
15	OFFICES	239'	33	INDUSTRIAL BUILDING	236'
16	AVIATION MUSEUM & LEARNING CENTER	246'	34	INDUSTRIAL BUILDING	230'
17	PRO STAR HANGAR AND OFFICES	265'	35	INDUSTRIAL BUILDING	283'
18	PRO-STAR REPAIR SHOP	250'			

DECLARED DISTANCES

APPROACH END ID	TORA	TODA	ASDA	LDA	LDA APPROACH END RSA LENGTH	LDA STOP END RSA LENGTH	ASDA RSA LENGTH	DATE APPROVED
RUNWAY 17-35								
17	9,250'	9,250'	9,250'	8,914'	1,000'	1,000'	1,000'	
35	9,250'	9,250'	8,500'	7,650'	1,000'	1,000'	1,000'	
RUNWAY 6-24								
6	7,650'	7,650'	7,650'	7,208'	1,000'	1,000'	1,000'	
24	7,650'	7,650'	6,850'	6,850'	1,000'	1,000'	1,000'	

RUNWAY SAFETY AREA DETERMINATION

RUNWAY ID	STANDARD RSA LENGTH BEYOND RUNWAY END	ACTUAL RSA LENGTH BEYOND RUNWAY END	ACTUAL RSA VIOLATIONS TO RSA ALONG SIDE OF RUNWAY	RSA DETERMINATION	DATE APPROVED
RUNWAY 17-35					
17	1,000'	1,000'	YES	N/A	
35	1,000'	214'-637'	NONE	N/A	
RUNWAY 6-24					
6	1,000'	600'	NONE	N/A	
24	1,000'	200'	NONE	N/A	

AIRPORT DATA TABLE

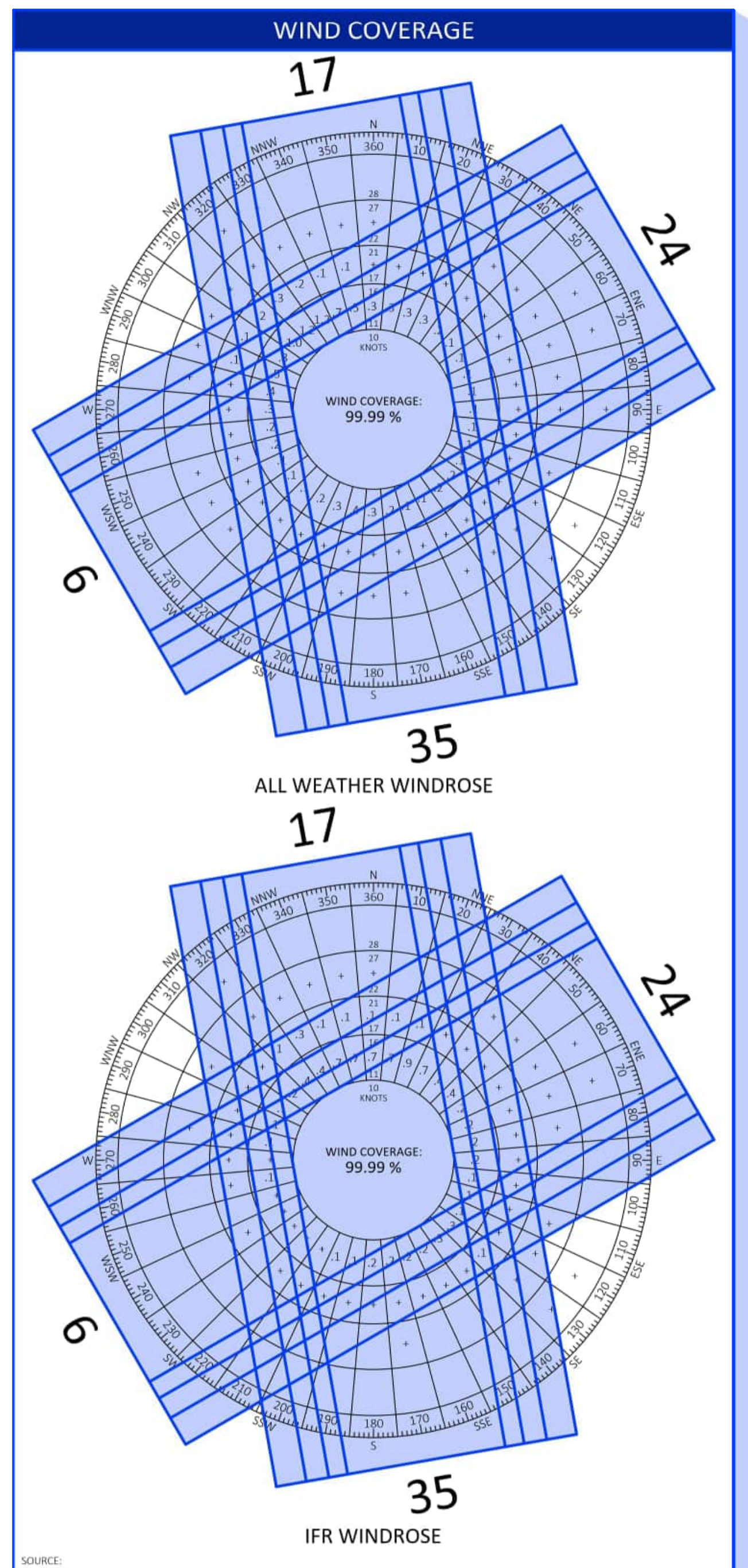
ITEM		EXISTING
AIRPORT REFERENCE CODE (ARC)		D-IV
MEAN MAXIMUM TEMPERATURE OF HOTTEST MONTH		82° F
AIRPORT ELEVATION		266.4'
AIRPORT NAVIGATIONAL AIDS		ROTATING BEACON, GPS
AIRPORT REFERENCE POINT	LATITUDE	N42°55'58.09"
	LONGITUDE	W71°26'08.66"
MISCELLANEOUS FACILITIES		ASOS
CRITICAL AIRCRAFT		MD-11
MAGNETIC VARIATION (SOURCE: NOAA, 2024)		14°6' W
NPIAS SERVICE LEVEL		COMMERCIAL, PRIMARY & SMALL-HUB
STATE SERVICE LEVEL		PRIMARY
COMBINED WIND COVERAGE (%)	ALL WEATHER	20 KNOTS - 99.99%
	IFR	20 KNOTS - 99.99%
TAXIWAY DESIGN GROUP (TDG)		6
TAXIWAY SAFETY AREA (TSA) WIDTH		171'
TAXIWAY OBJECT FREE AREA (TOFA) WIDTH		259'
TAXILANE OBJECT FREE AREA (TLOFA) WIDTH		225'
TAXIWAY EDGE SAFETY MARGIN (TESM)		15'
TAXIWAY SHOULDER WIDTH		25'
TAXIWAY LIGHTING		MITL
TAXIWAY MARKING		ENHANCED
TAXIWAY SURFACE TYPE		ASPHALT

RUNWAY DATA TABLE

ITEM		RUNWAY 17-35 EXISTING AND FUTURE	RUNWAY 6-24 EXISTING	RUNWAY 6-24 FUTURE
RUNWAY DESIGN CODE (RDC)		D-IV-1200	C-IV-4000	SAME
APPROACH REFERENCE CODE (APRC)		D/IV/1200 / D/IV-2400, D/V/2400	B/III/4000 / D/II/4000	SAME
DEPARTURE REFERENCE CODE (DPRC)		D/IV , D/V	B/III , D/II	SAME
CRITICAL AIRCRAFT		MD-11	B-757	SAME
PAVEMENT STRENGTH	SINGLE WHEEL	200,000 LBS	200,000 LBS	SAME
	DUAL WHEEL	300,000 LBS	300,000 LBS	SAME
	DUAL TANDEM	350,000 LBS	350,000 LBS	SAME
	PCR	700 /F/C/X/T	700 /F/C/X/T	SAME
SURFACE TYPE		ASPHALT - GROOVED	ASPHALT - GROOVED	SAME
EFFECTIVE RUNWAY GRADIENT		0.54%	0.27%	SAME
WIND COVERAGE (%)	ALL WEATHER	20 KNOTS - 99.94%	20 KNOTS - 99.68%	SAME
	IFR	20 KNOTS - 99.89%	20 KNOTS - 99.67%	SAME
RUNWAY LENGTH		9,250'	7,650'	SAME
RUNWAY WIDTH		150'	150'	SAME
RUNWAY SHOULDER WIDTH		25'	25'	SAME
DISPLACED THRESHOLD		336' / 850'	442' / N/A	SAME
RUNWAY END COORDINATES	LATITUDE	17 - N42°56'30.36"	6 - N42°55'41.85"	SAME
	LONGITUDE	17 - W71°26'22.45"	6 - W71°26'56.62"	SAME
	LATITUDE	35 - N42°55'06.56"	24 - N42°56'37.63"	SAME
	LONGITUDE	35 - W71°25'32.92"	24 - W71°25'47.24"	SAME
APPROACH LIGHTING		MALSR / ALSF-2	N/A	MALSF / N/A
RUNWAY LIGHTING		HIRL	HIRL	SAME
RUNWAY MARKING		PIR / PIR	PIR / NPI	SAME
CFR PART 77 APPROACH TYPE		PIR / PIR	PIR / NPI	SAME
CFR PART 77 APPROACH CATEGORY		50:1-40:1 / 50:1-40:1	50:1-40:1 / 34:1	SAME
VISIBILITY MINIMUMS		1/2 MILE / 1/4 MILE	3/4 MILE / 1 MILE	SAME
TYPE OF AERONAUTICAL SURVEY		VERTICALLY GUIDED	VERTICALLY GUIDED	SAME
RUNWAY DEPARTURE SURFACE		YES / YES	YES / YES	SAME
AIRPORT DESIGN APPROACH SURFACE FROM TABLES 3-3 AND 3-4 IN AC 150/5300-13B		#5, #6 / #5, #6	#5, #6 / #4	SAME
RUNWAY PROTECTION ZONE (RPZ)	INNER WIDTH	1,000' / 1,000'	1,000' / 500'	SAME
	OUTER WIDTH	1,750' / 1,750'	1,510' / 1,010'	SAME
	LENGTH	2,500' / 2,500'	1,700' / 1,700'	SAME
RUNWAY OBJECT FREE AREA (ROFA)	LENGTH BEYOND RUNWAY	1,000' / 1,000'	1,000' / 1,000'	SAME
	WIDTH	800'	800'	SAME
RUNWAY SAFETY AREA (RSA)	LENGTH BEYOND RUNWAY	1,000' / 214'-637'*	600'* / 200'*	SAME
	WIDTH	500'	500'	SAME
OBSTACLE FREE ZONE (OFZ)	LENGTH BEYOND RUNWAY	200' / 200'	200' / 200'	SAME
	WIDTH	400'	400'	SAME
TYPE OF INSTRUMENT APPROACH		ILS, GPS, VOR / ILS, GPS, VOR	ILS, GPS / GPS	SAME
INSTRUMENT APPROACH AIDS		ILS CAT-I; LOC; VOR; DME / ILS CAT-I, II & III; LOC; VOR	ILS CAT-I, LOC / N/A	SAME
VISUAL APPROACH AIDS		PAPI / PAPI	PAPI, REIL / PAPI, REIL	SAME
MAXIMUM ELEVATION		266.4'	241.5'	SAME
RUNWAY END ELEVATIONS		216.1' / 266.4'	220.9' / 241.5'	SAME
DISPLACED THRESHOLD ELEVATION		218.2' / 265.4'	221.3' / N/A	SAME
TOUCH DOWN ZONE (TDZ) ELEVATION		229.1' / 265.4'	223.7' / 241.5'	SAME
LINE OF SIGHT VIOLATIONS		N/A	N/A	SAME

*MITIGATED WITH DECLARED DISTANCES

WIND COVERAGE



SOURCE:
NATIONAL CLIMATIC DATA CENTER
743945 MANCHESTER-BOSTON REGIONAL AIRPORT
2008-2017

WIND COVERAGE

KNOTS	ALL WEATHER	IFR
10.5	98.41%	99.36%
13.0	99.63%	99.81%
16.0	99.93%	99.94%
20.0	99.99%	99.99%

SCALE

0 500 1000 1500 2000

FEET

NOTES:

- ALL POSITIONAL DATA REFERENCES NORTH AMERICAN DATUM OF 1983 (NAD83) AND NORTH AMERICAN VERTICAL DATUM 1988 (NGVD88).
- ALL ELEVATIONS SHOWN ARE AMSL.
- ROAD ELEVATIONS AS INDICATED INCLUDE CONSIDERATION OF VEHICLES PER CFR PART 77. (15' FOR ROAD, 17' FOR INTERSTATE, 23' FOR RAILROAD)
- EXISTING CONDITIONS UPDATED USING AERIAL PHOTOGRAPHY FLOWN IN 2009.
- AN OUTER MARKER FOR RUNWAY 6 IS LOCATED APPROXIMATELY 5.3 NAUTICAL MILES FROM END OF RUNWAY 6.

LEGEND

DESCRIPTION	EXISTING	FUTURE
RUNWAY CENTERLINE	▬	SAME
HOLD LINE	▬	▬
RUNWAY SAFETY AREA (RSA)	— RSA —	SAME
RUNWAY OBJECT FREE AREA (ROFA)	— ROFA —	SAME
RUNWAY PROTECTION ZONE (RPZ)	— —	SAME
RUNWAY VISIBILITY ZONE (RVZ)	- - - -	SAME
OBSTACLE FREE ZONE (OFZ)	— OFZ —	SAME
PRECISION OBSTACLE FREE ZONE (POFZ)	▬	SAME
BUILDING RESTRICTION LINE - 35' (BRL)	—	SAME
CFR PART 77 APPROACH SURFACE	—	SAME
AIRPORT DESIGN APPROACH SURFACE	—	SAME
NAVAID CRITICAL AREA	- - - -	- - - -
AIRPORT REFERENCE POINT	⌖	SAME
AIRPORT PAVEMENT	▬	▬
GROUND VEHICLE PAVEMENT	═	▬
AIRPORT BUILDINGS	▭	▭
MISCELLANEOUS BUILDINGS	▭	SAME
TO BE REMOVED	N/A	▩
AIRPORT PROPERTY	— - - —	▬
AVIGATION EASEMENT	— · — · —	▨
MUNICIPALITY BOUNDARY	— — —	SAME
NGS MONUMENT	◎	SAME
FENCE (8-FOOT TYPICAL)	- - - -	- - - -
GROUND ELEVATION CONTOURS (10')	200	SAME

MODIFICATION TO DESIGN STANDARDS

NO.	STANDARD MODIFIED	FAA STANDARDS	EXISTING CONDITION	DESCRIPTION	FUTURE ACTION	DATE APPROVED
1	RSA PENETRATION	ROADS MUST BE OUTSIDE RSA	SERVICE ROAD INSIDE RSA RWY 17 APPROACH	ATCT CLEARANCE REQUIRED	MEETS STANDARD VIA ATCT CONTROL OF AREA	06/22/2015
2	ROFA PENETRATION	ROADS MUST BE OUTSIDE ROFA	SERVICE ROAD AND HARVEY ROAD IN ROFA		MODIFICATION TO STANDARD APPROVED	07/16/2012
3	CENTERLINE TO CENTERLINE SEPARATION	400'	330'/330'	CENTERLINE TO CENTERLINE SEPARATION OF RWY 6-24 & TWY J FROM H TO RWY 24	AIRCRAFT WITH WINGSPAN IN EXCESS OF 160' WILL REQUIRE CONTROL FROM TOWER	07/16/2012
4	LINE OF SIGHT	CHAPTER 5 AC 150/5300-13	A 5' OBJECT BETWEEN THESE TWO TAXIWAYS CAN NOT BE SEEN BY AIRCRAFT	LINE OF SIGHT RWY 17-35 TWY D & E AREA	A MODIFICATION TO STANDARD HAS BEEN APPROVED BY FAA FILE #117	02/27/03
5	RUNWAY EDGE LIGHTS	FAA AC 150/5340-30A	LIGHT SPACING 77' FOR THE FIRST LIGHTS AT THE RWY 24 END		MOS APPROVED	08/03/2006

CITY OF MANCHESTER DEPARTMENT OF AVIATION

Signed by:
Thomas J. Malafronte, A.A.E
D10C8CA352B2495
APPROVED 4/28/2025 DATE

STATE OF NEW HAMPSHIRE

Signed by:
B53C39CD627D4E8...
APPROVED 4/28/2025 DATE

FEDERAL AVIATION ADMINISTRATION NEW ENGLAND REGION AIRPORTS DIVISION

CONDITIONALLY APPROVED:
Signed by:
Sean S. Tiney
D18E88F8A96143B...
(MANAGER, ANE)
DATE: 05/01/2025
SUBJECT TO COMMENTS IN LETTER DATED: 03/06/2025
AIRSPACE STUDY NUMBER: 2024-ANE-2074-NRA

FAA'S APPROVAL OF THIS AIRPORT LAYOUT PLAN (ALP) REPRESENTS ACCEPTANCE OF THE GENERAL LOCATION OF FUTURE FACILITIES DEPICTED. DURING THE PRELIMINARY DESIGN PHASE, THE AIRPORT OWNER IS REQUIRED TO RESUBMIT FOR APPROVAL THE FINAL LOCATIONS, HEIGHTS AND EXTERIOR FINISH OF STRUCTURES. FAA'S CONCERN IS OBSTRUCTIONS, IMPACT ON ELECTRONIC AIDS OR ADVERSE EFFECTS ON CONTROLLER VIEW OF AIRCRAFT APPROACH AND GROUND MOVEMENT AREAS WHICH COULD ADVERSELY AFFECT THE SAFETY, EFFICIENCY OR UTILITY OF THE AIRPORT.

REV	DATE	DESCRIPTION	BY	SPONSOR
4	10/28/24	ADDED THREE "FUTURE DEVELOPMENT AREA" LABELS; UPDATED RUNWAY DATA TABLE TO REPLACE "PCN" WITH PCR VALUES DETERMINED IN RECENT PART 139 INSPECTION, AND UPDATED REFERENCE FROM EB 99 APPROACH SURFACES TO AC 5300-13B TABLE 3-3 AND 3-4 APPROACH TYPES.	RSB	AECOM
3	03/25/24	ADDED FUTURE HGRS. IN NE RAMP, EAST RAMP, AND AMMON CENTER AREAS. ADDED FUTURE AERONAUTICAL DEVELOPMENT & REALTERM BLDGS. & APRONS, REVISED TWY K, CONNECTORS & PVMT. REVISED FACILITIES, AIRPORT & RUNWAY DATA TABLES. REMOVED ASOS, ADDED RWY 6 POFZ, ADDED SNOW MELTER, ADDED DEPARTURE RPZ'S FOR RW 24 & RW 35, UPDATED AIRPORT PROPERTY LINE SOUTH OF RW 6 END, UPDATED MAG.DECLINATION	RJM	AECOM
2	03/16/22	AEROTERM CARGO BUILDING & EDUCATIONAL FACILITIES ADDED	KNL	AECOM
1	09/15/21	EVTOL CHARGING FACILITIES ADDED	KMR	AECOM

McFarland Johnson
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BINGHAMTON, NEW YORK 13902 www.mjinc.com

MANCHESTER-BOSTON REGIONAL AIRPORT

MANCHESTER, NEW HAMPSHIRE

AIRPORT LAYOUT PLAN

SCALE: 1" = 500'	DESIGN: LC	SHEET: 1
DRAWN: RGT	PROJECT: 18053.04	
CHECKED:	DATE: FEBRUARY 2020	

C:\Users\BeckR3\AECOM\MHT On-Call Planning - TO28 - FY24 General Planning Support\900 CAD\ALP Update - 2024\MHT-ALP - 03-14-25.dwg